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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,620	04/19/2001	David B. Orchard	CA920000010US1	3584

7590 12/17/2003

IBM Corporation
Intellectual Property Law, Dept. 917
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EXAMINER	
RUTTEN, JAMES D	

ART UNIT	PAPER NUMBER
2122	6

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/838,620	ORCHARD ET AL.	
	Examiner	Art Unit	
	J. Derek Rutten	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 1-36 have been examined.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The use of the trademarks JAVA and XML have been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4, 9, 12, 14, 20, 24, 29, 32, and 34 contain the trademark/trade name JAVA. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify

any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe JAVA programming language source code and, accordingly, the identification/description is indefinite.

6. Claims 9, 10, 12, 29, 30, and 32 contain the trademark/trade name XML. As discussed above, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe eXstensible Markup Language and, accordingly, the identification/description is indefinite.

7. Claim 17 recites the limitation "a least one" (line 3). This limitation should read --at ~~a~~ least one--.

8. Claim 19 recites the limitation "data object description" in line 2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of further examination, this limitation is interpreted to refer to --a data object description comprising data object descriptors--.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

10. Claims 1, 2, 4-6, 9-15, and 17-21 are rejected under 35 U.S.C. 102(a) as being anticipated by "Objects, objects everywhere: Data binding from XML to Java, Part 1" by Brett McLaughlin, published July 18, 2000 (hereinafter referred to as "McLaughlin-1").

As per claim 1, McLaughlin-1 discloses:

a) describing a data object in a data object description document (See page 3, paragraph 3: "It is simple to look at the **XML document** in Listing 1 and see that it represents an object (the overall configuration object) with attributes, or variables." Attributes and variables are data descriptors which describe a data object.);

b) applying at least one code generation template to said data object description document (See page 4 paragraph 3: "Once you have created the **XML Schema**, you need to be able to extract from it the information needed to determine what Java classes should be created.");

c) generating at least one data access class (See page 3, paragraph 5: "Instead of this rather confusing approach, you can take a set of XML constraints (represented by either a DTD or XML Schema, which is addressed next) and **generate a Java class** (or classes, as appropriate) from those constraints. That generated class will represent any XML document that conforms to the constraints; and those XML documents will each be unmarshalled into an instance of the generated class."; Also see page 1 paragraph 9 – page 2 paragraph 1: "Binding refers to a Java object with **accessor and mutator methods** that affect the underlying XML document and also map directly to the names of

elements and attributes within the XML document." Accessor and mutator methods provide for data access.).

As per claim 2, the rejection of claim 1 is incorporated, and further, McLaughlin-1 discloses: *the method according to claim 1, wherein said data object description document conforms to a data object document type definition* (See McLaughlin-1 page 3 paragraph 5: "you can take a set of XML constraints (represented by either a **DTD** or XML Schema, which is addressed next)..." DTD is an acronym for document type definition.).

As per claim 4, the rejection of claim 1 is incorporated, and further, McLaughlin-1 discloses: *the method according to claim 1, wherein said at least one data access class is a data access Java class* (See McLaughlin-1 page 3 paragraph 5: "you can take a set of XML constraints (represented by either a DTD or XML Schema, which is addressed next) and generate a **Java class** (or classes, as appropriate) from those constraints.").

As per claim 5, the rejection of claim 1 is incorporated, and further, McLaughlin-1 discloses: *the method according to claim 1, wherein said data object description document is created in Extensible Markup Language (XML)* (See page 3, paragraph 5: "Instead of this rather confusing approach, you can take a set of **XML** constraints (represented by either a DTD or XML Schema, which is addressed next) and generate a Java class...").

As per claim 6, McLaughlin-1 discloses: *the method according to claim 1, wherein said at least one code generation template is implemented in a transformation language* (See page 4 paragraph 3).

As per claim 9, McLaughlin discloses:

b) applying a plurality of code generation templates (See McLaughlin-1 page 3 paragraph 5: "...you can take **a set of XML constraints** (represented by either a DTD or XML Schema, which is addressed next) and generate a Java class.")

All other limitations have been addressed above in the rejection of claims 1, 4, and 5.

As per claims 10 and 11, the rejection of claim 9 is incorporated, and further, all limitations have been addressed above with respect to the rejections of claims 2 and 3, respectively.

As per claims 13 and 15, all limitations have been addressed above in the rejection of claims 1 and 2.

As per claim 14, McLaughlin-1 discloses: *the method according to claim 13, wherein said object-oriented programming environment is Java* (See page 1 paragraph 1).

As per claim 17, this is an apparatus version of the claimed method discussed above in claim 1. Furthermore, McLaughlin-1 discloses output data results, which are inherently implemented by a computer system (apparatus) to produce such results (See Listing 2 and Listing 3 on pages 3 and 4). Such a computer system must have been used otherwise it would be inoperative.

All other limitations have been addressed in the rejection of claim 1 above.

As per claims 18, 20, and 21, the rejection of claim 17 is incorporated, and further, all other limitations have been addressed in the rejections of claims 2, 4, and 5, resepectively.

As per claim 19, the rejection of claim 17 is incorporated, and further, McLaughlin-1 discloses using *a code generation template to define the transformation of a data object description document and outputting a data access class* (See page 3, paragraph 5).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 3, 8, 12, 22-26, and 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin-1 as applied to claims 1, 9, 17, 22, and 29 above, and further in view of "Make classes from XML data: Data binding from XML to Java code, Part 2" by Brett McLaughlin, published August 8, 2000 (hereinafter referred to as "McLaughlin-2").

As per claim 3, McLaughlin-1 does not expressly disclose: *wherein steps b) and c) are performed by a data access code generator routine.*

However, in an analogous environment, McLaughlin-2 teaches a data access code generator routine called "SchemaMapper" (See McLaughlin-2, page 2, Listing 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of McLaughlin-1 with the code generator routine of McLaughlin-2. One of ordinary skill in the art would have been motivated to take XML data as an argument and perform code generation.

As per claim 8, the rejection of claim 3 is incorporated.

McLaughlin-1 discloses using a *data object description document and a code generation template as inputs and outputting a data access class* (See page 3, paragraph 5).

As per claim 12, the rejection of claim 11 is incorporated, and further, all limitations have been addressed above with respect to the rejections of claims 4, 5, and 8.

As per claim 22, McLaughlin does not expressly disclose a *program product* and *memory*.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the system and methods of McLaughlin-1 with memory and a program product. One of ordinary skill in the art would have been motivated to produce a program product to allow for the distribution of McLaughlin-1's system and method. Note further that it is well known in the computer art to reduce such teaching methods and practice to such a computer readable product. Also, one of ordinary skill would have been motivated to use memory to enable a computer system to run the application.

As per claims 23-26, the rejection of claim 22 is incorporated, and further, all other limitations have been addressed above in the rejections of claims 2, and 4-6, respectively.

As per claim 28, the rejection of claim 24 is incorporated, and further, all other limitations have been addressed above in the rejection of claim 8.

As per claim 29, all limitations have been addressed above in the rejection of claims 22, 24, and 25.

As per claims 30 and 31, the rejection of claim 29 is incorporated, and further, all other limitations have been addressed above in the rejection of claims 2 and 3, respectively.

As per claim 32, the rejection of claim 31 is incorporated, and further, all other limitations have been addressed above in the rejection of claim 8.

As per claim 33, all limitations have been addressed above in the rejection of claim 22.

As per claims 34 and 35, the rejection of claim 33 is incorporated, and further, all other limitations have been addressed above in the rejection of claims 14, 2, and 7, respectively.

13. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin-1 as applied to claim 6 above, and further in view of "What's the Big Deal with XSL?" by G. Ken Holman, published April 1999 (hereinafter referred to as "Holman").

As per claim 7, McLaughlin-1 does not expressly disclose the use of XSL as a transformation language.

However, in an analogous environment, Holman teaches that XSL can translate documents from XML to another format (See page 3 paragraph 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use McLaughlin's template with Holman's teaching of XSL to transform XML code into Java code. One of ordinary skill would have been motivated to transform structured information from a source hierarchy to a result hierarchy for immediate use in a different format.

As per claim 16, the rejection of claim 13 is incorporated, and further, all other limitations have been addressed in the above rejection of claim 7.

14. Claims 27 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin-1 in view of McLaughlin-2 as applied to claims 26 and 33, respectively, above, and further in view of Holman.

As per claim 27, the rejection of claim 26 is incorporated, and further, all other limitations have been addressed in the above rejection of claim 7.

As per claim 36, the rejection of claim 33 is incorporated, and further, all other limitations have been addressed in the above rejection of claim 7.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

"Compilers: Principles, Techniques, and Tools" by Aho et al. teaches compiler construction. Aho et al. states "a compiler is a program that reads a program written in one language – the source language – and translates it into an equivalent program in another language – the target language (see Fig. 1.1)... a target language may be another programming language".

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (703) 605-5233. The examiner can normally be reached on M-F 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (703)305-4552. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5484.

jdr

TUAN DAM
SUPERVISORY PATENT EXAMINER